



PAPUA NEW GUINEA NATIONAL INFORMATION & COMMUNICATIONS
TECHNOLOGY AUTHORITY

PUBLIC CONSULTATION RESPONSES SUMMARY

Contents

1 EXECUTIVE SUMMARY.....	1
2 CONSIDERATION OF THE MAJOR COMMENTS RECEIVED AND NICTA'S RESPONSE	2

1 Executive summary

NICTA published draft Band Plans under Section 167 of the *National Information and Communications Technology Act 2009* (the Act) in January 2021 to make band plans for additional IMT spectrum identified in WRC 2019.. The draft band plans were published to invite relevant comments from stakeholders and affected parties.

Written comments were received from the following

1. Digicel PNG Ltd
2. Telikom Ltd
3. Kumul Communications Ltd

The comments made by those parties are summarised in this report together with NICTA's consideration and response.

All of the comments that were received were helpful and appreciated and were given full consideration by NICTA.

2 Consideration of the major comments received and NICTA's response

No.	Sub- mission	Reference and Subject	Comments	NICTA's response and action
1	Digicel PNG	2600 MHz draft band plan	<ul style="list-style-type: none"> • Prefer Band 41 Full TDD • Believe NICTA should adopt needs-based allocation rather than equal allocation • Asked for NICTA to be firm on use-it-lose-it policy 	<p>NICTA noted digicel's preference for Band 41 Full TDD allocation.</p> <p>For fair and efficient use of spectrum resource to encourage competition.</p> <p>NICTA notes use-it-lose-it comments from Digicel.</p>
1	Telikom Ltd	2600 MHz draft band plan	<ul style="list-style-type: none"> • Telikom prefers single channel TDD (C1) does not agree with NICTA's Flexible TDD/FDD option. • Telikom Ltd prefers GSMA supported C1 option • 	<p>NICTA notes Telikom's preference for single channel TDD</p>

No.	Sub- mission	Reference and Subject	Comment	NICTA's response & Action
			<ul style="list-style-type: none"> • Telkom Ltd recommends NICTA the following if to go with option C3 • Regulatory Framework: Have technical prerequisites in place • Interference Management: Have guidelines to manage interference issues from optional TDD • Device Certification and Interoperability: Devices to support C3 • 	<p>NICTA notes Telkom's preference and comments if option C3 is implemented</p> <p>NICTA noted the comments. The Synchronisation guideline document addresses interference issues.</p> <p>NICTA type approval covers for device certification and interoperability.</p>
1	KCL	2600 MHz draft band plan	<ul style="list-style-type: none"> • KCL already made comments in previous consultation of 2.6 GHz band • KCL noted that LTE band n41 is 2496 MHz and not 2500 MHz 	NICTA notes KCL's comments and preference for n41 allocation
2	Digicel PNG Ltd	3500 MHz Draft band plan	<ul style="list-style-type: none"> • Digicel believes NICTA should adopt a needs-based allocation of spectrum and rejects cap on allocation • N78 Band approach is appropriate • Should cover 3300-3600. 3x 100 MHz Ch 	<p>Digicel's comments are noted.</p> <p>For fair and efficient use of spectrum resource to encourage competition.</p> <p>NICTA will consider additional allocation upon proof that spectrum is needed</p>

No.	Sub- mission	Reference and Subject	Comment	Action
2	DIGICEL PNG Ltd	3500 MHz Draft band plan	<ul style="list-style-type: none"> • NICTA should ensure adequate protection of C Band services above 3600 MHz • NICTA should implement firm use-it-lose-it policy • Prefer light licensing for higher bands 	<p>NICTA notes Digicel's comments NICTA notes Digicel's comments NICTA is reviewing spectrum license framework for IMT-Advanced and beyond.</p>
2	Telikom Ltd	3500 MHz Draft band plan	<ul style="list-style-type: none"> • Ensure protection of incumbent services and those in adjacent band (FSS,) • Need constant consultation regarding their existing ptp and ptmp in 3550 to 3600 MHz • NICTA must create policy to have more towers built and in residential areas • Create policy to have multiple Internet gateway 	<p>NICTA notes and will ensure adequate protection for FSS NICTA will work with Telikom to ensure smooth migration NICTA disagrees. NICTA will set minimum standards for tower erection Current licensing framework provides for multiple internet gateway</p>
2	KCL	3500 MHz	<ul style="list-style-type: none"> • KCL Welcomes opening of 3500 to IMT • 100 MHz channelization will not be met if NICTA uses 3400 to 3600 MHz • Noting point 2.6 of draft document it will be wise to delay till after WRC 23 outcomes to see if there will be extensions of the 3500 MHz band through global Harmonisation 	<p>NICTA notes comment NICTA notes the comment NICTA fully notes comment and will see outcome of WRC-23</p>

No.	Sub- mission	Reference and Subject	Comment	Action
3	Digicel PNG Ltd	Market-based spectrum assignment and pricing	<ol style="list-style-type: none"> 1. Digicel respectfully disagrees, it views the current administrative process meets and will meet the needs and demands of PNG citizens. 2. Digicel views that NICTA's proposal will give rise to unacceptable insecurities and uncertainties to licensees 3. There will be uncertainties around spectrum renewal, spectrum award, license fee levels, business and finance planning and forecasting. 4. Will affect investment decisions coz of high cost of deployment in PNG 5. Digicel agrees with 1.7 that some operators hold spectrum under administrative allocation and do not provide service to PNG consumers through full utilization. However, it is a direct result of NICTA's inability to deploy the full range of powers available to it under the NICT Act 2009. NICTA should fully use these powers available to ensure efficient and full utilization of spectrum. 6. NICTA should implement robust use-it-lose-it policies 7. Digicel respectfully disagrees with 1.2 that market-based assignment doesn't always ensure efficient or fair distribution of spectrum. Those with financial backing obtain spectrum and mostly do not use them efficiently 8. NICTA assigned spectrum to KCL, 12.5 MHz and absolutely no deployment (sitting on spectrum) and NICTA failed to take meaningful step to recall spectrum for use efficiently for benefit of PNG citizens 9. Digicel recognizes 11 bands listed as High Demand Spectrum(HDS). It believes there's adequate spectrum for 3 operators in PNG through administrative allocation 10. Digicel denies there is shortage of spectrum in the HDS to warrant market-based allocation. It believes respectfully that effective policing of current allocations is needed. 	<p>1 NICTA notes the comment, however NICTA will continue to assess the market and intervene whenever necessary</p> <p>2,3,4 The market-based process is sufficient to address all the issues</p> <p>5,6 NICTA notes the comments</p> <p>7, Comments noted</p> <p>8 NICTA notes comments</p> <p>9 NICTA notes the comment</p> <p>10 NICTA will assess on a case by case basis for HDS.</p>

No.	Sub- mission	Reference and Subject	Comment	NICTA's Response
3	Telikom Ltd	Market-based spectrum assignment and pricing	<p>Q1. a) NICTA to provide data to demonstrate congestion in HDBs b) NICTA should make clear the technical criteria to designate bands as High Demand and licensing must ensure equitable distribution to all licensees c) Telikom is of the view that all HDBs should be equally allocated to the current 3 Mobile network operators</p> <p>Q2) a) Telikom agrees with limited HDBs to cater for everyone b) Telikom believes that NICTA isn't able to conclusively substantiate that there is inefficient use of spectrum in PNG coz of small market size. e.g 900 MHz used by only two MNOs, 2100 not accessible to Telikom, 700 MHz used by telikom 4G Lte aggregation.</p> <p>Q3) a) Telikom disagrees with HDB new licenses and renewals be issued on market-based only. b) Only 3 major MNOs unlike other markets. Small operators will be unfairly disadvantaged as spectrum price increases for HDBs c) i) Spectrum availability will be an issue if market based is implemented on the HDBs. ii) Increased costs to the MNOs when bidding for the HDBs <ul style="list-style-type: none"> • iii) Unequal access with well financed telcos having advantage over new entrants and smaller players • iv) Limited coverage, fragmented spectrum holdings leading the coverage issues • v) Spectrum Hoarding • vi) Regulatory complexity • vii) Uncertainty and Risk </p> <p>Q4) a) Telikom disagrees. NICTA should encourage competition down to small players. b) Only MNOs will afford HDBs others wont have equal opportunity' c) 800 MHz must be included in this list of HDBs</p>	<p>1 NICTA notes the comments</p> <p>2 NICTA noted comment. Based on current sub 1 GHz allocation is fully exhausted. High demand for 2.6 GHz is example of HDB demand</p> <p>3 NICTA notes comments. NICTA is considering market based allocation to address these issues with the current administrative process.</p> <p>4 NICTA notes comment. Based on current sub 1 GHz allocation is fully exhausted. High demand for 2.6 GHz is example of HDB demand</p> <p>NICTA is considering market based allocation to address these issues with the current administrative process.</p>

No.	Sub- mission	Reference and Subject	Comment	Action
3	Telikom Ltd	Market-based spectrum assignment and pricing	<p>d) HDBs in each band should be quantified with respect to congestion in currently used band</p> <p>Q5) a) Current formulae adequately addresses value of spectrum below 2600 MHz b) NICTA should encourage small players with reasonable priced spectrum c) Only MNOs will afford HDBs leaving small players missing out d) Concerns for Market based priced HDBs</p> <ul style="list-style-type: none"> • cost barrier • unequal access • Limited participation • Lack of predictability in pricing • Spectrum fragmentation • Speculative behaviour • Administrative complexity <p>Q6) a) Telikom is convinced there is no nationwide for spectrum except some main centres b) Potential issues</p> <ul style="list-style-type: none"> • Lack of transparency in auction process • Mismatch of benchmarking with other countries given unique PNG market dynamics, conditions • Important to strike right balance with annual license fee. Not setting it too high to burden users or too low to encourage efficient use <p>Q7) a) NICTA should enhance stakeholder engagement with workshops, forums, meetings for more inclusive engagement with stakeholders</p> <ul style="list-style-type: none"> • Provide grater clarity and detail • Consider international best practices. • Increase transparency in decision making • Monitor and evaluate effectiveness of plan 	<p>5 NICTA is considering market based allocation to address these issues with the current administrative process.</p> <p>6 NICTA will realise the outcomes expressed once the market based licensing process is fully completed</p> <p>7) NICTA notes the views</p>